

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.112, and in light of the remarks which follow, are respectfully requested.

Claims 1-16 have been amended in response to §112 issues raised in the Office Action. Claims 1-16 remain pending in this application.

Claims 1-16 were rejected under 35 U.S.C. §112, second paragraph, for the reasons set forth in paragraph (2) of the Office Action. Reconsideration and withdrawal of this rejection are respectfully requested in view of the above amendments and for at least the following reasons.

Claims 1-16 have been amended for purposes of clarification only. Applicants have endeavored to amend the claims in response to the Examiner's comments and suggestions and they believe the claims are now free of the objections raised in the Office Action. The Examiner's thorough analysis of claim terminology is acknowledged with appreciation.

In view of the aforementioned amendments, the §112, second paragraph rejection has been obviated and should be withdrawn. Such action is earnestly solicited.

Claims 1-16 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,908,805 to Huser et al. for the reasons provided in paragraph (4) of the Office Action. Reconsideration and withdrawal of this rejection as applied to the currently amended claims are requested for at least the reasons which follow.

Huser et al. '805 is directed to a process for the preparation of a catalyst by combining a water-soluble phosphine and a transition metal compound and reducing the transition metal with hydrogen. Although the reference teaches that the transition metal compound should be water-soluble or should dissolve under the reaction conditions used (column 4, lines 19-21), Huser et al. '805 also indicate that it is not essential to use water-soluble nickel compounds since a sparingly soluble compound like nickel cyanide "dissolves well in an aqueous solution of water-soluble phosphine, in particular one which is sulfonated" (column 4, lines 34-36).

The problem faced by the present inventors was how to use nickel hydroxide, a relatively inexpensive compound which is available in highly pure form, but is insoluble in water and aqueous phosphine solutions. The solution to the problem consists of treating an aqueous mixture of a water soluble phosphine and nickel hydroxide particles with HCN to dissolve the nickel.

Clearly the cited reference fails to disclose or suggest a process which includes steps (b) and (c) of present claim 1. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The motivation to modify the relied on prior art must flow from some teaching in the art that suggests the desirability or

incentive to make the modification needed to arrive at the claimed invention. *In re Napier*, 55 F.2d 610,613; 34 U.S.P.Q.2d 1782,1784 (Fed. Cir. 1995). Obviousness cannot be established by modifying the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the modification. *In re Geiger*, 815 F.2d 686,688; U.S.P.Q.2d 1276,1278 (Fed. Cir. 1987).

Applicants submit that those of ordinary skill would not be motivated to use nickel hydroxide in the process of Huser et al. '805 since the compound is not soluble in water or in aqueous solutions of phosphines. Since water-insoluble nickel cyanide is soluble in aqueous phosphine solutions, those of ordinary skill would surely just add nickel cyanide rather than producing it *in situ* as a separate step.

Moreover, there would not be a reasonable expectation of success if one were motivated to employ nickel hydroxide in the process of the reference in view of the insolubility of the compound as mentioned above. Finally, not all the steps of claim 1 would be met if nickel hydroxide was used as the transition metal compound in the process of Huser et al. '805.

Applicants also note that at least the features of 5, 6, 10 and 11 are not disclosed or suggested in Huser et al. '805.

For at least the reasons enumerated above, the §103(a) rejection over Huser et al. '805 should be withdrawn. Such action is respectfully requested.

Claims 1-16 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 4,087,452 to Kuntz for the reasons given in paragraph (5) of the Office Action.

Reconsideration and withdrawal of this rejection as applied to the amended claims is respectfully requested for at least the following reasons.

Kuntz '452 is directed to a hydrocyanation process in which a catalytic mixture of phosphine and transition metal compound and optionally, a reducing agent, is either prepared beforehand or *in situ* with HCN and an ethylenically unsaturated compound. On the other hand, the presently claimed process involves the steps of admixing a nickel hydroxide and an aqueous solution of a phosphine, adding HCN or a compound which generates HCN to the admixture and stirring until the nickel hydroxide has at least partially dissolved, and subjecting the mixture to a reduction.

In the working examples of Kuntz '452, the nickel compounds all appear to be water-soluble. The reference fails to disclose or suggest any techniques for employing a transition metal compound which is water-insoluble and insoluble in aqueous solutions of phosphines. Kuntz '452 does not disclose or suggest an order of addition of the reagents as set forth in the present claims. There is no teaching therein which would motivate those of ordinary skill to select an insoluble compound like nickel hydroxide, there would be no reasonable expectation that nickel hydroxide could be successfully used in the process of the reference, nor would the selection of nickel hydroxide for use in the invention of Kuntz '452 yield a process having all the features recited in claims 1-16.

For at least the aforementioned reasons, the §103(a) rejection over Kuntz '452 should be withdrawn. Such action is respectfully requested.

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From the foregoing, further and favorable action in the form of a Notice of

Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at his earliest convenience.

Respectfully submitted,

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